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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,863	02/03/2004	Charles L. Bruzzone	59472US002	3508

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EXAMINER	
SEVER, ANDREW T	

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H'A

Office Action Summary	Application No.	Applicant(s)	
	10/771,863	BRUZZONE ET AL.	
	Examiner	Art Unit	
	Andrew T. Sever	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/2005, 5/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

2. The attempt to incorporate subject matter into this application by reference to the Handbook of Pressure Sensitive Adhesive Technology is ineffective because it is a publication not a US patent document.

Applicant is using the reference to the Handbook of Pressure Sensitive Adhesive Technology to provide a special definition of "Pressure Sensitive Adhesive" that is different then the dictionary definition of each word. Accordingly the reference is being considered an attempt to incorporate essential material for an enabling disclosure by incorporation by reference to a non-US patent document, which is not permitted. See MPEP 608.01(p).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 and 16-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Katsumata et al. (US 6,829,090.)

Katsumata teaches in figure 4 a polarizing beam splitter, comprising:

A multilayer reflective polarizing film (it is made of at least three layers 22, 25, 21 and 22);

A pressure sensitive adhesive (23 which is described as being a soft adhesive which in column 6 lines 21-27 is described as a pressure sensitive adhesive (in the non-UV form) disposed on the multilayer reflective polarizing film; and

A first rigid cover (the prism glass 54) disposed on the pressure sensitive adhesive.

With regards to applicant's claim 2:

The prism includes two covers.

With regards to applicant's claim 3:

Katsumata in column 6 lines 21-27 also describes a UV adhesive, which would be a structural adhesive.

With regards to applicant's claim 4:

The covers are prisms.

With regards to applicant's claim 5:

Katsumata teaches in column 6 lines 27-39 that the prism is made of SF57 a type of glass.

With regards to applicant's claim 6

The term photo initiator literally refers to a light beam of some type that initiates a reaction. Since once the beamsplitter is constructed it is assumed that the adhesive has already been reacted and therefore no initiator is required (for example a UV curable adhesive such as that specified by Katsumata would be initiated by UV light which is a photo initiator, once the bonds have been made however UV light is no longer needed.) (See also US 4,243,500 to Glennon, which teaches the structure and method of using a pressure sensitive adhesive in column 5 lines 25-50)

With regards to applicant's claim 7:

After the reaction takes place pressure sensitive adhesives are substantially free of un-reacted monomers (either they did not have any monomers to start with, or the monomers

have been reacted sufficiently to bind the parts of beam splitter together.) (See US 4,243,500 to Glennon, which teaches in column 5 lines 25-50 that the photo-initiator causes a radical emitting initiator substance to release a free radical which causes polymerization of the monomers to bond the monomers together in a polymer.)

With regards to applicant's claim 16:

See figure 9 for example where the projection lens system is part 79.

With regards to applicant's claim 17:

See above with regards to applicant's claims 16 and 2.

With regards to applicant's claims 18-23:

The method of making the polarizing beam splitter of Katsumata is inherent since the polarizing beam splitter exists it must have been made.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 8-15 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano et al. (US 6,386,710) in view of Katsumata et al. (US 6,829,090.)

Kusano teaches in figure 2 a polarizing beam splitter, comprising:

A first multilayer reflective polarizing film (1d) (Kusano specifies in column 7 lines 41-55 that the reflective polarizing layer is a polarizing film, in a different embodiment in column 11 lines 25-35 it is specified that they are dichroic polarizing films, as is well known in the art polarizing dichroic films generally are made of multiple layers (a single layer is generally ineffective at separating the light) US 2004/0105078 to Akiya teaches that prior art (and the inventive subject mater in Akiya) uses multiple layers in dichroic beam splitters for each color film (see paragraph 7 which teaches two dichroic films made of a multilayer film; also see US 6,523,962 to Yajima which teaches a polarization beam slitter in figure 3A which is made up of glass (322), adhesive (325) and multilayer films (331 and 332) see column 2 lines 44-50) since as evidenced by Akiya and Yajima dichroic and polarization films are generally comprised of multiple layers, it would have been obvious to one of ordinary skill in the art that the (dichroic) polarization films to have multiple layers in the beamsplitter of Kusano);

A second multilayer reflective polarizing film (1e) proximate the first multilayer reflective polarizing film, wherein a major surface of the second multilayer reflective polarizing film faces a major surface of the first multilayer reflective polarizing film;

An adhesive (1c) disposed between the first multilayer reflective polarizing film and the second multilayer reflective polarizing film;

A first rigid cover (1a) disposed adjacent to the first polarizing film; and

A second rigid cover (1b) disposed adjacent to the second multilayer reflective polarizing film

Kusano however does not teach that at least a pressure sensitive adhesive attaches one of the covers. Katsumata teaches in column 4 lines 1-14 that by using pressure sensitive adhesive (soft type adhesive) it is possible to suppress internal stress and optical distortion which when present in prior art beam splitters would degrade the quality of the projected image. Accordingly it would have been obvious to one of ordinary skill in the art to use pressure sensitive adhesive as taught by Katsumata to attach at least one of the covers of Kusano since it is desirable to reduce optical distortion in a polarization beam splitter.

With regards to applicant's claim 9:

Katsumata in column 6 lines 21-27 also describes a UV adhesive which would be a structural adhesive and since prior art prisms used structural adhesive exclusively it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a mix of the UV adhesive (Structural) and the pressure sensitive adhesive

since as discussed above in the 35 U.S.C. § 102(e) rejection to applicant's claims, Katsumata teaches that the mix of Structural (UV) and pressure sensitive has desirable qualities in a polarization beam splitter.

With regards to applicant's claim 10:

One embodiment of Katsumata teaches only Structural adhesive.

With regards to applicant's claim 11:

As discussed above, absent evidence to the contrary the adhesive between the two films is a structural adhesive.

With regards to applicant's claim 12:

Both covers are prisms.

With regards to applicant's claim 13:

Kusano teaches in column 5 lines 1-13 that the prisms are glass.

With regards to applicant's claims 14 and 15:

See the above discussion with regards to claims 6 and 7 in the 35 USC §102(e) rejection based on Katsumata.

With regards to applicant's claims 24-28:

The method of making the polarizing beam splitter of Kusano in view of Katsumata just described is obvious, since the beam splitter must be made.

Response to Arguments

7. Applicant's arguments filed 6/8/2005 have been fully considered but they are not persuasive.

With regards to the rejection of claims 1-7 and 16-23 applicant argues that Katsumata does not teach pressure sensitive adhesive. Applicant states that pressure sensitive adhesives have certain art recognized characteristics and therefore since the Katsumata reference does not teach those characteristics, applicant concludes that it does not teach a pressure sensitive adhesive.

The office disagrees; applicant is reminded of MPEP 2111, which among other things cites *In re Paulsen* (31 USPQ2d 1671, 1674 (Fed. Cir. 1994)) 'Inventor may define specific terms used to described invention, but must do so "With reasonable clarity, deliberateness, and precision" and, if done, must "set out his uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change in meaning'. Applicant has failed to meet this burden. First applicant has not defined the term with precision, for example qualification 2 is "adherence with no more than finger pressure" this is a broad qualification as it does not state a measurable amount of pressure (A gorilla can apply much more pressure with its

finger then a new born human infant.) Qualification 3 state "sufficient ability to hold onto an adherand." Sufficiency is a broad term, a piece of steal has sufficient ability to hold onto an adherand which happens to be a steel binding adhesive. Other qualifications are similar to these examples and accordingly the qualifications do not set forth a special definition and therefore as dictated by MPEP 2111.01 the term pressure sensitive adhesive has been given its plain dictionary meaning, which is an adhesive that is sensitive to some undisclosed amount of pressure and accordingly all adhesives can be considered a pressure sensitive adhesive since at some pressure they will break their bonds. Applicant's argument is found unpersuasive.

With regards to applicant's arguments on claims 6 and 7, as has now been emphasized in the rejection of these claims applicant has not set forth a special definition for photo-initiators, and with regards to un-react monomers or oligomers as was stated in the previous office action and now made more clear all adhesive can be considered to be substantially free of them, as substantially free does not mean that it does not have any un-reacted monomer or oligomers in it and as discussed above the particular type of adhesive taught by Katsumata is inherently substantially free of un-reacted monomers after it has been set, applicant's arguments are considered unpersuasive.

With regards to applicant's claims 18-23, the laminate film that applicant request be pointed out in Katsumata is the film made when adhesive is applied to the polarization film, it is a step in the manufacturing of the prism (at some point inherently the adhesive

is attached to the polarization film and that structure can arbitrarily be called a laminate as applicant has done.)

With regards to the 35 U.S.C. § 103(a) rejections of claims 8-15 and 24-28 applicant presents two arguments first as argued above Katsumata does not teach a pressure sensitive adhesive, however as discussed above this argument is not persuasive. The second argument is that Kusano does not teach multilayer films only single layer films, however as has been emphasized one of ordinary skill in the art at the time the invention was made would expect that the dichroic films are multilayer as this is how they are generally made as evidenced by Akiya which has been added to show that the multi-layer films are implicitly disclosed (see MPEP 2144.01 and *In re Preda* 159 USPQ 342, 344 (CCPA 1968)). Applicant's arguments are therefore found unpersuasive. All other 35 U.S.C. § 103(a) arguments have been addressed above with regards to the 35 U.S.C. §102(e) rejection of claims 1-7 and 16-23, except with regards to lack of motivation statements, which have been added to emphaises the motivation in those rejections deemed to need them.

Applicant's arguments are not found persuasive and accordingly the grounds of rejection presented in the non-final rejection of 3/22/2005 have been repeated with minor changes and supporting references to demonstrate well known/ implicit/ and or inherent qualities of the Katsumata and Kusano references. Accordingly the rejection is being made final.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

William Perkey
Primary Examiner